	Middle Years Programme	Form F3.1
	Moderation coversheet: Subjects	

Please complete a copy of this form for **each** folder of work submitted for moderation.

Please ensure that the material being submitted for moderation conforms to the requirements set out in the relevant subject group guide. All the criteria **must be applied twice** within the folder accompanying this form, unless stated otherwise in the subject guide.

School name: ***Victoria Shanghai Academy*** School code: _____

Student's name/number: ***Justin TANG*** Subject: ***Maths (Extended)***

The student's work is (please mark box):

☐ comparatively good ☒ ***X*** average ☐ comparatively weak

Nature and title of assessment task		Criteria					
		A	B	C	D	E	F
1. ***Bench Design (Investigation)***	Teacher	***4***			***2***		
	Moderator						
2. ***Patterns in Probability (timed assessment task)***	Teacher		***3***	***4***			
	Moderator						
3. ***A Special Matrix (timed assessment task)***	Teacher		***8***		***3***		
	Moderator						
4. ***Broad-Based Test***	Teacher	***4***		***4***			
	Moderator						

Please use the reverse of this form or separate sheets to identify the conditions under which each piece of work was done (project, classroom test, end-of-term examination, and so on), the amount of support provided, any special circumstances, and general/specific information on the student. Provide any information that may assist the moderators in determining how the criteria were applied.

Name of teacher: F J Davis

Signature of teacher: _____ Date: *26th March 2012*

Names of teachers involved in internal standardization for this subject:

Frank Davis, Daniel Slosberg, Echo Li

Teacher's comments:

Task & Criterion	Grade	General Remarks	Why this grade
Bench A	4	The graphs were quite good and there was good creativity on show. The functions chosen were sophisticated and the "matched" well. There is very little narrative to explain how the functions have been arrived at, though clearly technology was somewhere at the source.	The functions selected were appropriately non-linear and they were manipulated to achieve a good bench design – hence the level 4. We felt a higher grade was inappropriate because it wasn't clear where the functions had come from.
Bench D	2	We felt that though quite a bit of research had been done, it wasn't entirely clear how this Research influenced the development of the project.	We wanted to reward the research done, but we couldn't see how the research had directly influenced the design of the bench, hence the limiting grade of 2 against Criterion D.
Prob B	3	Justin did a reasonable job in terms of coming up with probabilities and trying to organise his answers into a form that would reveal patterns that could be described by a general rule. Justin was able to give a narrative description of the rules he thought he found, but didn't articulate them in formal mathematical notation.	The answers to questions 2, 3, and 4 are fine and should have set him up for the general rule(s). In question 5 he has articulated one of the basic patterns (about sums of powers). He did a good job on Q7 – suggesting that at some level he did understand the patterns involved. But the fact that he never came up with the equation containing a, b and N precluded him from a grade higher than the 3 we gave.
Prob C	4	We felt it was reasonably easy to follow his reasoning, and he *tried* to use appropriate notation. We felt he had shown sufficiently acceptable communication.	Justin used a tabular approach to list out possible outcomes. He relied rather too much on narrative, and not enough on formal notation to get his argument across. We felt we had penalised him to some degree in this respect in criterion B.

Task & Criterion	Grade	General Remarks	Why this grade
Matrix B	8	We felt Justin performed very strongly here. His solution wasn't perfect – in places it needed some narrative to explain what we was doing, and there was a but generally he absolutely "got" what the question was about and proved the things he needed to prove.	We felt all the elements of authentic proof were presented and decided it would be inappropriate to "punish" the one or two errors eg the transposing error in the rows of his matrix answer to Part 2 part (a)
Matrix D	3	In terms of criterion D, he understood that transformations were involved, and that multiple transformations can bring you back to the starting point	Justin's answer in Part 2(g) is evidence that he understood the important features of multiple transformations. In Part 2(f) he showed he understood that the inverse of a reflection is itself. His relatively poor articulation of these features limited him to a level 3.
Test A	4	Justin performed reasonably well on most of the level 1–4 questions and on some of the level 5–8 questions.	There were some errors in the early questions, but the only question here that "he messed up" on was question 5. To a large degree we felt he compensated for this in question 8 (albeit without using matrix methods). This is why we awarded a level 4 here.
Test C	4	We felt it was reasonably easy to follow Justin's lines of reasoning.	He showed good vector notation in Q3, and expression of rules of indices in Q2. There was some probability notation used in Q10, but not in Q4. This prevented him from achieving a level 5 in this criterion.